

**Table A.4.7. East Yard SWMU 42 Summary of Boring Log and Analytical Data**

Boring/ Date/ Report	Total Depth of Boring	Depth to Water <sup>1</sup>	Lithologic Description <sup>2</sup> (Observation Notes)	Maximum PID Response, ppmv (Depth)	Sample Type <sup>3</sup>	Sample ID (Depth)	Analyses <sup>4</sup>	COC Concentrations greater than Delineation Criteria
S1341 9/11/02 Stabilization Measures SWMU 42	12	1.5	Fill: 0-11 (brick at 4-6; LNAPL— black, motor oil consistency jar test—blebs observed concrete fragments at 6.5-9)	113 (1-1.5)	O, S, F	S1341B (2-4)	LNAPL characteristics	
					O, S, F	S1341E2 (8.5-9)	LNAPL characteristics	
S1340 9/18/02 Stabilization Measures SWMU 42	12	2.5	Fill: 0-10 (LNAPL—black, motor oil consistency, jar test—<0.25” film at 2.5-4)  Clay: 9.5-12	42 (3.5-4)	O, S, F	S1340D4 (7.5-8)	LNAPL characteristics	
S0856/MW152 8/26/02 Full RFI AOC 16-EY1	14	10	Fill: 0-11.5  Peat: 11.5-12.5 Clay: 12.5-14	409 (11)	O, U, F	S0856A4 (1.5-2)	V, S, M	Antimony: 161 mg/kg Iron: 24900 mg/kg Lead: 977 mg/kg
					O, S, N	S0856F3 (11-11.5)	V, S, M	Acetone: 110 mg/kg (Impact to Groundwater—not applicable)
					O, S, N	S0857G3 (13-13.5)	V, S, M	Iron: 44300 mg/kg
					Water	MW152 (10/7/02)	V, S, M, water quality	Bis(2ethyl hexyl)phthalate: 310 ug/L  Arsenic: 26.6 ug/L
RW0061 5/31/01 Stabilization Measures	10	5	Fill: 0-9 (staining through core, petroleum odor at 0-7; saturated with free phase at 4-7)	2040 (4-5)	None			
MW0073 8/21/00 Stabilization Measures	11	3	Fill: 0-9 (brick fragments at 7-8; odor, sheen at 4-9)  Clay: 9-11	1094 (7-8)	None			
MW0051 9/29/99 Stabilization Measures	11	3			None			
H0450 10/13/99 2 <sup>nd</sup> OWSS AOC 16-EY1	12	2	Fill: 0-5  Clay: 5-12	0	Water	H0450	V, S, M	Arsenic: 78.3 ug/L Lead: 70.7 ug/L

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M51TPZ9 2/5/99 Stabilization Measures SWMU 42	12	3.5	Fill: 0-8: Fly ash, hydrocarbon odor at 0-2.5; fly ash, brick fragments at 2.5-8  Clay: 8-12	437 (3-4)	None			No LNAPL
M51TPZ8 2/5/99 Stabilization Measures SWMU 42	12	4.1	Fill: 0-9: Fly ash zones, hydrocarbon odor at 1-9  Clay: 9-12	199 (4-5)	None			No LNAPL
M51TPZ7 2/5/99 Stabilization Measures SWMU 42	12	5.2	Fill: 0-8: brick fragments, fly ash, some residual LNAPL on water in spoon, hydrocarbon odor at 4-8  Clay: 8-12	2.3 (5-6)	None			LNAPL sheen
M51TPZ6 2/5/99 Stabilization measures SWMU 42	12	4.3	Fill: 0-8: brick fragments, hydrocarbon odor at 3-4; Fly ash, black stained, some residual LNAPL at 4-6  Organic clay: 8-12; cattails	164 (5-6)	None			LNAPL present
M51TPZ5 2/5/99 Stabilization Measures SWMU 42	12	5.25	Fill: 0-10: hydrocarbon odor, trace residual LNAPL at 0-4; Black throughout core, LNAPL present (bleeding) at 4-8; fly ash ,hydrocarbon odor at 7-8  10-12: Clay	149 (3-4)	None			LNAPL present
M51TPZ4 2/4/99 Stabilization Measures SWMU 42	12	4.41	Fill: 0-11: Brick fragments, hydrocarbon odor at 0-4; LNAPL bleeding from core, hydrocarbon odor at 4-8; globules of LNAPL present at 8-12  Organic clay: 11-11.5 Silty sand: 11.5-12	104 (6-7)	None			LNAPL present
M51TPZ3 2/4/99 Stabilization Measures SWMU 42	11	6.66	Fill: 0-II: hydrocarbon odor at 4; residual LNAPL in core at 0-4  Clay: 8-11	24.4 (3-4)	None			No LNAPL

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M51TPZ2 2/4/99 Stabilization Measures SWMU 42	11	6.71	Fill: 0-11: Brick fragments at 0-2 Fly ash, black, hydrocarbon odor, LNAPL at 3.5-6	933 (4-5)	None			No LNAPL
M51TPZ1 2/4/99 Stabilization Measures SWMU 42	12	6.34	Fill: 0-8.2: brick fragments, hydrocarbon odor, black staining at 0-4; Fly ash, black stained LNAPL bleeding at 7-12	918 (5-6)	None			LNAPL present
M51TP20 9/27/99 Stabilization Measures SWMU 42	12	7.6	Fill: 0-11: black staining and odor at 4-11  Clay: 11-12	388 (9-10)	None			LNAPL present
M51TP19 9/27/99 Stabilization Measures SWMU 42	12	7.2	Fill: 0-10  Clay: 10-12	12 (8-10)	None			LNAPL present
M51TP18 9/27/99 Stabilization Measures SWMU 42	12	5.5	Fill: 0-11  Clay: 11-12	93 (10-12)	None			LNAPL present
M51TP17 6/28/99 Stabilization Measures SWMU 42	12	5.44	Fill: 0-10: Brick fragments at 0-4; hydrocarbon odor at 7-10; black stained, some black liquid at 8-10  Clay: 10-12	19.8 (9-10)	None			No LNAPL
M51TP16 6/3/99 Stabilization Measures SWMU 42	12	4.5	Fill: 0-9.5:  Clay: 9.5-12	0	None			No LNAPL
M51TP15 6/3/99 Stabilization Measures SWMU 42	12	4.68	Fill: 0-9: black stained at 0.5-1.5; coke fines, hydrocarbon odor at 1.5- 3; broken nitrified clay pieces, concrete rubble, black liquid at 7-8  Clay: 9-12	236 (1-2)	None			Sheen present

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M51TP14 4/4/99 Stabilization Measures SWMU 42	13	4.76	Fill: 0-10: LNAPL at 4-10; Fly ash with some brick at 5-7.5; hydrocarbon odor at 1-7.5  Clay: 10-11.6	597 (7-8)	None			No LNAPL
M51TP13 3/26/99 Stabilization Measures SWMU 42	14	1.11	Fill: 0-12.6: Odor at 1; Fly ash at 7 and 12.5; Black staining and hydrocarbon odor at 8.5-12.6; Black “tar”like material at 11.5-12  Clay: 12.5-13 No recovery: 13-14	337 (9)	None			No LNAPL
M51TP12 3/25/99 Stabilization Measures SWMU 42	14	6.44	Fill: 0-12.6: Odor at 0-2.5; Fly ash at 7 Black staining and odor at 8.5-12; black “tar” like material at 11.5-12; black staining, fly ash at 12.3-12.5  Clay: 12.5-13	337 (8)	None			Sheen present
M51TP11 2/10/99 Stabilization Measures SWMU 42	12	3.11	Fill: 0-11.5  Clay: 11.5-12	0	None			No LNAPL
M51TP10 2/10/99 Stabilization Measures SWMU 42	12	3.58	Fill: 0-10.5: Hydrocarbon odor at 0- 9; sheen on water surface at 5-9  Clay: 10.5-11.5 Silt: 11.5-12	74 (5-6)	None			LNAPL sheen
S42TPZ3 8/6/98 1 <sup>st</sup> Groundwater SWMU 42	10	--	Fill: 0-10: very strong hydrocarbon odor at 0-4; fly ash, hydrocarbon LNAPL through core, bleeding from core at 4-6.6; hydrocarbon odor at 6.6-10	2960 (1-2)	None			LNAPL detected
S42TPZ2 8/6/98 1 <sup>st</sup> Groundwater SWMU 42	12	4.97	Fill: 0-11: trace coal fragments at 0- 6; fly ash at 5.5-6  Gray fat clay: 11-12 (cattails, peat layer at 11.5)	0	None			No LNAPL
S42TPZ1 8/6/98 1 <sup>st</sup> Groundwater SWMU 42	12	2.34	Fill: 0-.5: Slight hydrocarbon odor; fly ash 8-9.5)  Gray clay: 9.5-10 No recovery: 10-12	0	None			No LNAPL

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PE040 6/11/98					Post excavation	PE040A	V, TPH	Benzene: 4.97 mg/kg TPH: 24700 mg/kg
PE039 6/5/98					Post excavation	PE039A	TPH	None
PE038 6/5/98					Post excavation	PE038A	TPH	None
PE037 6/5/98					Post excavation	PE037A	TPH	TPH: 21700 mg/kg
PE036 5/4//98					Post excavation	PE036A	TPH	None
PE035 6/5/98					Post excavation	PE035A	TPH	None
PE0034 12/3/97					Post excavation	PE0034SA	V, S, TPH	None
PE0033 12/3/97					Post excavation	PE0033SA	V, S, TPH	None
PE0032 12/3/97					Post excavation	PE0032SA	V, S, TPH	None
PE0027 11/13/96					Post excavation	PE0027A	V, S, TPH	None
PE0026 11/13/96					Post excavation	PE0026SA	V, S, TPH	None
PE0025 11/13/96					Post excavation	PE0025SA	V, S, TPH	None
PE0024 11/13/96					Post excavation	PE0024SA	V, S, TPH	None

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PE0023 11/13/96					Post excavation	PE0023SA	V, S, TPH	None?
PE0022 11/13/96					Post excavation	PE0022SA	V, S, TPH	None
SB0276 1/23/97 1 <sup>st</sup> Groundwater SWMU 42			Sample collected through crack in slab floor			SB0276SA 1-2	V, S, TPH	None
SB0275 1/23/97 1 <sup>st</sup> Groundwater SWMU 42			Sample collected through crack in slab floor			SB0275Sa 1-2	V, S, TPH	None
SB0274 1/23/97 1 <sup>st</sup> Groundwater SWMU 42			Sample collected through crack in slab floor			SB0274SA 1-2	V, S, TPH	None
H0451 10/13/99 2 <sup>nd</sup> OWSS AOC 16-EY1	12	3	Fill: 0-9: brick fragments, odor, sheen, at 7-9  Clay: 9-12	1094 (7-8)	Water	H0451	LNAPL	LNAPL detected
SB0281 5/14/97 1 <sup>st</sup> OWSS AOC 16-EY1	8	5	Fill: 0-8: Strong petroleum odor at 2-8; black staining at 6-8	345 (4-6)	O, S, F	SB0281SC (6-7)	V, S, M, TPH	<i>Naphthalene: 170 mg/kg (impact to groundwater—not applicable)</i>
HP0061 10/18/96 1 <sup>st</sup> OWSS AOC 16-EY1	6	3	Fill: 0-6: black staining at 0-2; gray staining at 2-6	13 (0-2)	Water	HP0061A	V, S, M	Antimony: 245 ug/L Arsenic: 782 ug/L Barium: 2550 ug/L Chromium: 1060 ug/L Lead: 7.17 ug/L Mercury: 7.17 ug/l Nickel: 620 ug/L Selenium: 117 ug/L Vanadium: 951 ug/L

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HP0059 10/18/96 1 <sup>st</sup> OWSS AOC 16-EY1	8	5	Fill: 0-8: Petroleum odor at 2-8; staining at 4-8, sheen at 6-8	1844 (2-4)	Water	HP0059A	V, S, M	Benzene: 42 ug/L  2-methylnaphthalene: 290 ug/L  Arsenic: 658 ug/L Barium: 3650 ug/L Beryllium: 60 ug/L Cadmium: 8.5 ug/L Chromium: 1730 ug/L Cobalt: 3150 ug/L Lead: 3150 ug/L Nickel: 1580 ug/L Vanadium: 2290 ug/L
HP0044 9/30/96 1 <sup>st</sup> OWSS AOC 16-EY1	8	5	Fill: 0-8: petroleum odor and staining at 1.8-8	1903 (6-8)	Water	HP0044A	V, S, M	Benzene: 24000 ug/L Ethylbenzene: 150000 ug/L Toluene: 46000 ug/L Xylenes: 1200000 ug/L  Benzo(a)anthracene: 21 ug/L Benzo(b)fluoranthene: 13 ug/L Benzo(k)fluoranthene: 5 ug/L 1-Methylnaphthalene: 3600 ug/L 2-Methylnaphthalene: 6900 ug/L Indene: 770 ug/L Naphthalene: 7300 ug/L  Arsenic: 167 ug/L Beryllium: 21 ug/L Cadmium: 13 ug/L Lead: 2740 ug/L Nickel: 143 ug/L Vanadium: 415 ug/L

## NOTES:

Benzene and benzo(a)pyrene are highlighted in bold because they are indicator constituents of concern (COCs)

Shaded rows indicate samples collected from nearby SWMUs/AOCs

ppm<sub>v</sub> = parts per million (volume basis)

All depths referenced on this summary table are in feet below the ground surface.

PID = Photoionization detector.

ID = Identifier.

mg/kg = milligrams per kilogram (equivalent to parts per million).

µg/L = micrograms per liter (equivalent to parts per million).

<sup>1</sup>Depth to water as observed during borehole advancement.

<sup>2</sup>“Fill” encountered within the completed borings was characteristically described as an asphalt layer (typical) underlain by a heterogeneous gravel to clay mixture of unconsolidated materials, ranging in color from tan to gray with occasional construction debris (e.g., brick) present. In some locations, the fill material is further characterized by containing a slag or beaded material, in which case it is noted within the table. Also noted on the table are any other olfactory or visual observations that indicate potential petroleum-type impacts within the fill unit were observed.

<sup>3</sup>P – property boundary, O – on-site, U – unsaturated, S – saturated, F – fill, N – native. “None” indicates that no sample was collected.

<sup>4</sup>V – VOCs, S – SVOCs, M – metals, Pb – lead, TOL – total organic lead, TEL – tetraethyl lead, TPH – Total Petroleum Hydrocarbons; SPLP -- Synthetic Precipitation Leaching Procedure; -Phys. Char. -- physical characteristics.